AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. Contract ID Code	Page	Of
Firm-Fixed-Price	1	20

2. Amendment/Modification No.	3. Effective Date	4. Requisition/Purchase Req No.	5. Project No. (If applicable)
P00010	2004SEP02	SEE SCHEDULE	

6. Issued By Code W56HZV

TACOM WARREN
AMSTA-AQ-ADEAP
DEBBIE PETERMAN (586)574-6360
WARREN, MICHIGAN 48397-5000
HTTP://CONTRACTING.TACOM.ARMY.MIL
EMAIL: PETERMAD@TACOM.ARMY.MIL

7. Administered By (If other than Item 6) Code S2101A

DCMA BALTIMORE
217 EAST RED WOOD ST
SUITE 1800
BALTIMORE, MD 21202-5299

SCD C **PAS** NONE **ADP PT** HQ0338

8. Name And Address Of Contractor (No., Street, City, County, State and Zip Code)

S F A INC
20 S WISNER ST
FREDERICK, MD. 21701-5652

TYPE BUSINESS: Other Small Business Performing in U.S.

Code 0U5N7 **Facility Code**

☐ **9A. Amendment Of Solicitation No.**

9B. Dated (See Item 11)

☒ **10A. Modification Of Contract/Order No.**

DAAE07-02-D-T001

10B. Dated (See Item 13)
2002FEB06

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ **The above numbered solicitation is amended as set forth in item 14. The hour and date specified for receipt of Offers**
☐ **is extended,** ☐ **is not extended.**

Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended by one of the following methods: (a) By completing items 8 and 15, and returning _____ copies of the amendments: (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. Accounting And Appropriation Data (If required)
NO CHANGE TO OBLIGATION DATA

13. THIS ITEM ONLY APPLIES TO MODIFICATIONS OF CONTRACTS/ORDERS

KIND MOD CODE: G

It Modifies The Contract/Order No. As Described In Item 14.

☐ **A. This Change Order is Issued Pursuant To: The Changes Set Forth In Item 14 Are Made In The Contract/Order No. In Item 10A.**

☐ **B. The Above Numbered Contract/Order Is Modified To Reflect The Administrative Changes (such as changes in paying office, appropriation data, etc.) Set Forth In Item 14, Pursuant To The Authority of FAR 43.103(b).**

☒ **C. This Supplemental Agreement Is Entered Into Pursuant To Authority Of:** mutual agreement of parties

☐ **D. Other (Specify type of modification and authority)**

E. IMPORTANT: Contractor ☐ **is not,** ☒ **is required to sign this document and return _____ copies to the Issuing Office.**

14. Description Of Amendment/Modification (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

SEE SECOND PAGE FOR DESCRIPTION

Contract Expiration Date: 2008JAN31

Except as provided herein, all terms and conditions of the document referenced in item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. Name And Title Of Signer (Type or print)		16A. Name And Title Of Contracting Officer (Type or print)	
		YVETTE THOMPSON THOMPSOY@TACOM.ARMY.MIL (586)574-7356	
15B. Contractor/Offeror	**15C. Date Signed**	**16B. United States Of America**	**16C. Date Signed**
_____ **(Signature of person authorized to sign)**		**By** /SIGNED/ **(Signature of Contracting Officer)**	2004SEP02

SECTION A - SUPPLEMENTAL INFORMATION

Contract DAAE07-02-D-T001, Modification P00010

1. This is a bilateral modification.

2. Pursuant to the Changes -- Fixed Price Clause (AUG/1987) in the contract, the following changes are made to this contract.

3. The purpose of this modification is to revise Clauses C.22.4, C.22.4.1., and C.23.1. The current clause is revised from:

(1) C.22.4. Instructor and Key Personnel Training (I&KP). The Contractor shall provide I&KP training and shall utilize draft courseware. I&KP training shall consist of courses for operators and maintainers. The Contractor shall conduct a total of 3 classes consisting of one class for Army operators, one class for Army maintainers, and one class for Marine Corps operator/maintainers for a maximum of 30 students. The Government reserves the right to have additional participants present during conduct of course. Army training will be conducted at Ft. Lee, VA; marine training will be conducted at Camp LeJeune, NC. Each course shall not exceed 120 hours. These courses shall be targeted to instructor and key personnel who will operate and maintain the system. Following completion of I&KP training, approved Government comments received from attendees shall be incorporated into the courseware to yield a final product. The Contractor shall maximize the use of distance learning to reduce platform instruction through videotape, Internet web based, computer based, CDROM, and interactive CDROM training programs.

(2) C.22.4.1. The Contractor shall deliver three (3) A-TWPS and the associated support equipment to include Government verified technical manuals, all lesson materials, training literature, training aids, special tools and test equipment, and all tools necessary to disassemble and assemble the TWPS to the training sites not later than 7 days prior to the training.

(3) C.23.1. The Contractor shall deliver the associated support equipment to include Government approved technical manuals, all lesson materials, training literature, training aids, special tools & test equipment, and all tools necessary to disassemble and assemble, to the training sites not later than 7 days prior to the training.

4. This modification revises Clause C.22.4. and C.22.4.1. to read:

(1) (Changed by Mod. 10) C.22.4. Instructor and Key Personnel Training (I&KP). The Contractor shall provide I&KP training and shall utilize draft courseware. The I&KP training course shall consist of Army and MC training. The Contractor shall conduct a total of three (3) courses. MC training shall consist of one combined operator and maintainer course. Army training shall consist of two courses; one operator course and one maintainer course. The courses shall accommodate a maximum of 30 students each. The Government reserves the right to have additional participants present during conduct of course. The Army and MC training courses will be conducted at the Contractor's facility. Each operator course shall not exceed 120 hours. Each maintainer course shall not exceed 40 hours in duration. All training shall be complete within three (3) consecutive work weeks. The courses shall be targeted to instructor and key personnel who will operate and maintain the system. Within 15 days of completion of all I&KPT training, the Government will provide comments to the Contractor that shall be incorporated into the draft courseware to yield the final courseware.

(2) (Changed by Mod. 10) C.22.4.1. The Contractor shall have at least three (3) TWPS units that have been brought up to the configuration baseline and associated support equipment available during the course to facilitate training. After training, the training units shall be refurbished as necessary to complete refurbishment for final delivery. The testing equipment shall include one (1) draft technical manual for each system, all lesson materials, training literature, training aids, special tools and test equipment, and all tools necessary to disassemble and assemble the test units.

(3) (Changed by Mod. 10) C.23.1. The Contractor shall ensure that all course training material is available and in place prior to the first day of class. The associated support material and equipment includes draft technical manuals for each student, all lesson materials, training literature, training aids, special tools & test equipment, and all tools necessary to disassemble and assemble the units.

4. There is no monetary change as a result of this modification.

5. All other terms and conditions remain unchanged.

*** END OF NARRATIVE A 010 ***

SECTION C - DESCRIPTION/SPECIFICATIONS/WORK STATEMENT

C.1 TACTICAL WATER PURIFICATION SYSTEM

C.1.1. The Tactical Water Purification System (TWPS) is a tactically transportable system capable of purifying, storing and dispensing potable water from fresh, brackish, sea, and nuclear, biological and chemical (NBC) contaminated water. The system shall provide quality drinking water to US troops in peacetime and war, and to civilian agencies or host nations for emergencies, disaster relief, humanitarian efforts, or peacekeeping missions.

C.2 SYSTEM DESCRIPTION

C.2.1 The Contractor shall furnish all supplies and services that are necessary to accomplish this contract for the items set forth in Section B, or elsewhere in the contract. The Contractor shall supply all design, hardware, and documentation necessary to satisfy the requirements of this Scope of Work and Purchase Description (PD) ATPD 2219 for the 1,500 Gallons Per Hour Tactical Water Purification System (1,500 GPH TWPS) (See Section J, Attachment 1) hereinafter referred to as PD 2219. Subordinate specifications are contained in PD 53048, Tank, Fabric, Collapsible; Self-Supporting, Open Top, Water Storage, 3000 Gallons (See Section J, Attachment 2) and NBC Contamination Survivability Criteria for Army Materiel (See Section J, Attachment 3). The Government, in support of the Contractor, will provide in a timely manner, the materials and/or property listed in Exhibit A, Government Furnished Material /Property.

C.2.2 There are two configurations of the TWPS required under this contract, an Army version and a Marine Corps version. The Army TWPS configuration is transportable by a Heavy Expanded Mobility Tactical Truck with load handling system. The Marine Corps TWPS configuration is a skid-mounted configuration, and excludes all the modules listed below. The Marine Corps version may be ordered as a stand-alone system. If modules are required for MC-TWPS, they shall be ordered as stand alone units. For contract purposes, the Army version shall be hereinafter referred to as the A-TWPS and the Marine Corps version as the MC-TWPS. The term TWPS when used without service (Army or Marine Corps) specific identifiers shall refer to both TWPS configurations.

C.2.2.1 The Contractor shall deliver the Army TWPS (A-TWPS) with an integrated Government furnished 60kW generator. The Marine Corps TWPS (MC-TWPS) delivery does not include the generator. The A-TWPS includes the Water Quality Analysis Set: Purification (WQAS-P) (commercial item description (CID) # A-A-59338 dated 14 April 1999. The Government will furnish as Government Furnished Equipment (GFE) the water testing kit, chemical agent to the contractor for each A-TWPS produced. The MC-TWPS does not include the WQAS-P nor will the water testing kit be furnished as GFE. The MC-TWPS shall include only the pH/Temperature, chlorine and conductivity capabilities required in A-A-59338. The MC-TWPS requirements are in paragraphs 2.5.3, 2.5.3.1, 2.5.3.2, 2.5.4, 2.5.4.1, 2.5.4.2,2.5.5, 2.5.5.1, and 2.5.5.2 of A-A- 59338. Commercial instructions for each of these capabilities shall also be included for the MC-TWPS.

C.2.2.2 The Contractor shall overpack one hard copy of the TWPS technical manual (see paragraph C.8.2.1 in the SOW) and the 60kW technical manual with each delivered system, unless otherwise directed by the Government.

C.2.2.3 Each TWPS configurations shall be delivered with Basic Issue Item (BII).

C.2.3 A-TWPS Configuration. The A-TWPS shall meet all the requirements detailed in PD 2219. The A-TWPS will be in a load handling system (LHS) compatible Flatrack configuration. It shall be capable of being transported using the Heavy Expanded Mobility Tactical Truck with load handling system (HEMTT-LHS)(M1120), Palletized Load System (PLS) trucks (M1074 and M1075)and PLS trailer (M1076). The A-TWPS is a fully integrated system with all equipment required to accomplish all of the performance requirements stored within the flatrack configuration. The A-TWPS shall have the capability to store 15,000 gallons of potable water and dispense 250 gallons of potable water per minute. The A-TWPS includes a Government Furnished Equipment (GFE) 60kW Tactical Quiet Generator that the Contractor shall integrate into the flatrack configuration and supply as part of the delivered A-TWPS. (See Exhibit A)

C.2.4 MC-TWPS Configuration. The MC-TWPS shall meet all the requirements detailed in PD 2219. The MC-TWPS is a skid-mounted configuration. MC-TWPS specific requirements include the capability to store 6,000 gallons of potable water and dispense 125 gallons per minute of potable water. It shall be capable of being transported on a Medium Tactical Vehicle Replacement (MTVR) Truck (MK23 or MK25). This system will not come equipped with a power source but shall be capable of interfacing and utilizing the 60 kW Tactical Quiet Generator (TQG) as its power source. The MC-TWPS also has optional, separately priced modules that will add capability to the MC-TWPS, as specified below. These modules will be transported separately from the skid-mounted configuration and must be capable of being transported on an MTVR (MK23 or MK25).

C.2.4.1 MC-TWPS Cold Weather Module. This module is employed during severe weather operations (temperatures below 32 F to -25 F) to prevent water in the TWPS subsystem from freezing. This module consists of any equipment necessary for the TWPS to operate successfully in these conditions. The requirements for this module are described in PD 2219.

C.2.4.2 (Changed by Modification P00008). MC-TWPS Supplemental Cleaning, Waste & Storage Module. This module is used to temporarily store the cleaning and preservation waste streams in a single 1500 gallon tank, recirculate the waste within the storage tank for neutralization, and transfer the waste from the storage tank to a waste truck. The requirements for this module are described in PD

2219.

C.2.4.3 MC-TWPS Ocean Intake Structure System (OISS) Module. The OISS is deployed at beach locations exposed to wave action and ocean locations with significant tidal variations. This module reduces the amount of operator intervention required for ocean beaches water purification. The OISS module allows for raw water extraction without operator intervention in a 24-hour period. The requirements for this module are described in PD 2219.

C.2.4.4 MC-TWPS NBC Treatment Module. This module is used as the final product water treatment step when operating on a raw water source contaminated with nuclear, biological or chemical warfare agents. The requirements for this module are described in PD 2219.

C.2.4.5 MC-TWPS NBC Survivability Module. This module is used when the system is deployed in NBC Survivability conditions. The requirements for this module are described in PD 2219.

C.3 CONTRACT UNIQUE DEFINITIONS

C.3.1. First Production Unit. For purposes of this contract, the first production unit shall be the first unit built under this contract.

C.3.2 First Article Test. For purposes of this contract, the first article test shall consist of:

a. The Logistics Demonstration (LD)
b. Production Verification Test (PVT)
c. Initial Operational Test and Evaluation (IOT&E)

C.4 DATA SUBMISSION REQUIREMENTS

C.4.1 The Contractor shall deliver all data under this contract, in English, electronically (unless otherwise specified) via Web site, electronic mail in MS Office (95 or higher) and Windows compatible format, Compact Disc, or diskette. The Government will provide electronic mail addresses during the Start of Work meeting. An electronic copy of each Data Deliverable shall be submitted to the System Acquisition Manager (SAM) at AMSTA-DSA-FP-PW and Marine Corps Systems Command (MARCORSYSCOM (PM CSLE)), unless otherwise specified. A copy of the cover letter and/or electronic message transmitting the data shall be copy furnished the buyer for this contract at the time the data is submitted. The required information shall be furnished to the Government in accordance with the requirements on the Contract Data Requirement List (CDRL), see Section J, Exhibit B for details.

C.4.2. The Contractor shall prepare technical data and/or reports in the format and scope specified in the applicable Data Item Description, DD Form 1664 (DID), or as described elsewhere in the contract. Tailored DID's referenced in this contract are located in Section J as Attachments. Should the Contractor need to review copies of DIDs that are not tailored but are referenced in the contract and/or delivery orders, refer to database at http://astimage.daps.dla.mil/online/. To obtain documents without a cost, click on "Quick Search".

C.5 INTEGRATED PRODUCT TEAM

C.5.1 The Contractor and the Government shall use an Integrated Product Team (IPT) approach as the primary management tool for monitoring the status of the work described in this contract. The team will be jointly chaired by both Government and Contractor. The IPT will provide a means for coordinating and/or monitoring schedules, integrated logistics, and technical performance. The Government and Contractor shall also use teleconferencing, Internet Home Pages, and shared common databases to ease communication. IPT members will include personnel designated by the Contractor, the Contracting Officer, DCM and other personnel designated by the Government, which may include Government support contractors.

C.6 CONFERENCES, MEETINGS, AND REVIEWS

C.6.1 (A001) The Contractor shall plan, host, attend, coordinate, support and conduct the meetings, formal reviews, conferences, and audits (hereinafter called "reviews") required by this contract. The reviews shall be conducted at Contractor facilities. Reviews requiring demonstration and/or examination of equipment shall be conducted at the Contractor's facility. All such reviews shall be included in the program schedule and may be held concurrently with the Government's approval. The Government reserves the right to cancel any review or to require any review to be scheduled at critical points during the period of performance. The Contractor, in conjunction with the Government, shall prepare agendas and conference presentation materials, and provide minutes and reports following each review. Contractor format is acceptable. Action item documentation, assignment of responsibility for completion and due dates shall be determined prior to adjournment of all reviews. A summary of all action items, responsible parties, and estimated completion dates shall be included with the minutes.

C.6.2 This contract requires the following reviews:

C.6.2.1 Integrated Product Team (IPT) meeting. Within 30 days after the initial delivery order award, the Government and the Contractor will host a start of work meeting. The meeting shall be held at the Contractor's facility, may last several days, and shall include approximately 20 Government personnel. The purpose of this meeting is to review contract terms and conditions and review all data requirements, required specifications, test requirements, and logistics requirements. Also, the Contractor will demonstrate to the Government their management procedures, provide progress assessments, review of technical and other specialty area status, and establish schedule dates for near term critical meetings/actions.

C.6.2.2 Program Status Reviews. Government-Contractor program status reviews shall be held quarterly for the first three years following contract award and then semi-annually thereafter. Initial program status review shall be conducted 90 days after the IPT meeting. Program status reviews shall be held at the Contractor's facility, in Frederick, MD. The Contractor's progress, management, technical support services, if any, integrated logistics support, systems engineering, administrative, assurance of compliance with contract requirements, program status, funding, problem identification and resolutions shall be discussion items. Actual versus expected performance of each area shall be addressed. The Contractor shall prepare presentation materials providing an overview of all discussion items.

C.6.2.3 Provisioning Guidance Conference. The Provisioning Guidance Conference shall be held as part of the IPT meeting. The Contractor shall provide a provisioning performance schedule at the IPT meeting in accordance with the Provisioning Requirements Statement. (See Section J, Attachment 4). This schedule shall provide an estimate of the number of items to be provisioned and the number of conferences that will be required.

C.6.2.3.1 Provisioning Conference. The Contractor shall host Provisioning Conference(s) at the Contractor's facility, based on the provisioning performance schedule. The Contractor shall furnish provisioning data and clarification of any provisioning issues to the Government.

C.6.2.4 Logistics and Engineering Working Group Meetings. Logistics and engineering working group meetings shall be held concurrently with the program status reviews. Logistic and engineering meetings shall include development of technical manuals, training, provisioning, drawings, and any other logistics or engineering issues that need to be addressed. Additional working group meetings shall be convened, as necessary, for each of the areas at the Contractor's facility.

C.6.2.5 Production Readiness Review. The Production Readiness Review (PRR) shall be performed to formally evaluate the Contractor's production readiness and identify existing or projected manufacturing problems and areas of risk. The Contractor shall demonstrate progress in the following areas: (1) attaining the program's production goals, (2) resolving manufacturing problems (or that a plan for their resolution acceptable to the Government has been developed), and (3) mitigating all production risks. The Contractor shall show that the system design has included those key production factors necessary to ensure the system can be acquired on schedule.

C.6.2.5.1 The initial production readiness review shall be conducted at the Contractor's facility during the IPT meeting. At the Government's discretion, follow-on production program reviews may be held quarterly at the Contractor's facility.

C.6.2.5.2 The review dates shall be Contractor-proposed, Government-approved, and incorporated into the program schedule. The agenda of the PRR shall include, as applicable, at least the following considerations:

a. A Manufacturing Program Status to include the overall manufacturing system and detailed factors such as: manufacturing organization, responsibilities, facilities and equipment manufacturing methods, and production flow.
b. A status review of all production efforts for schedule considerations.
c. The identity of open production concerns which require additional direction/effort to minimize risk to the production program.
d. A status review of production engineering efforts, tooling and test equipment demonstrations, and proofing of new materials, processes, methods, special tooling, and test equipment.
e. A status of the hazard list from Environmental, Safety and Health (ESH) analysis.
f. The status of long lead items for production, if any.
g. The status of quality assurance/control measures.

C.7 CONFIGURATION MANAGEMENT REQUIREMENTS

C.7.1 The Contractor shall maintain a configuration management (CM) process for the control of all hardware and software configuration documentation, media, and parts representing or comprising the TWPS. The principles contained in EIA-649 and MIL-HDBK-61A may be used for guidance. The Contractor's CM process shall, as a minimum, consist of configuration identification, configuration control, configuration status accounting, and configuration audits. The Contractor shall designate a CM representative to serve as a primary point of contact to the Government for all CM matters. The CM process shall be documented in the program management process available for Government review. A Government CM plan will be provided to the Contractor, at the IPT meeting, for information regarding the configuration control board process, to include ECP disposition times, primary points of contact, and other relevant CM information.

C.7.1.1 (A002/A014) Configuration Audit Summary Report (Physical) (PCA). The functional baseline is established as the performance

specification , PD 2219. A Configuration Audit Summary Report Physical (PCA) shall be performed to verify the TWPS and its Configuration Identification (CI) are accurate, complete and compatible, and to identify discrepancies between the hardware and the product drawings. The Contractor shall conduct the PCA at the Contractor's facility. The Government reserves the right to witness any portion of the audit. The PCA shall verify the drawings reflect the "as-built, as-designed" configuration of all newly developed or modified portions of the system; insure accurate form, fit, function and interface information is provided on control drawings for non-developmental/commercial off-the-shelf items; and confirm the drawings accurately represent the "as-built, as-designed" production configuration. The PCA shall be conducted incrementally, concurrent with fabrication and hardware assembly of a TWPS unit, which includes all corrections resulting from Government testing. The Contractor's plan that provides the system to be audited, facilities, personnel, documentation , see paragraph C.7.4 on Product Drawings, and other support as may be required, shall be available to the Government on request. The Contractor shall document the results of the PCA after each audit and shall correct all audit discrepancies documented in the Configuration Audit Reports. In the event the Government finds evidence the drawings and/or documents , see paragraph C.7.4 for drawing deliveries, do not adequately represent the equipment, production shall cease until all discrepancies are corrected and the Government approves the Configuration Audit Report. The Product Baseline will be established upon completion of the Government testing, PCA, and resolution of audit discrepancies. The PCA shall be formatted and delivered in accordance with:

DI-CMAN-81022C, Configuration Audit Summary Report Physical and CDRL A002/A014.

C.7.2 Configuration Control. The Contractor shall implement configuration control methods and procedures which maintain the integrity and traceability of the established product baseline. The production baseline configuration shall be established after the approval of the FAT (consisting of a Logistic Demonstration (LD), a Production Verification Test (PVT) and an Initial Operational Test & Evaluation (IOT&E)). Changes to established baselines shall only be made after Government approval of Engineering Change Proposals (ECP) and Request for Deviation (RFD). Sufficient supporting data to evaluate the proposed change, such as drawings, supplemental drawings, sketches, specifications, or manufacturer's data sheets, as well as the impact to logistics, TM and spares, shall be submitted with ECP's and RFD's. Changes shall be identified to the affected assembly serial number, or if not part of an assembly, to the affected equipment serial number. Prior to FAT, the Contractor may make changes to the TWPS provided all changes are submitted to the Government. No approval of these changes is required. Following FAT approval, the Contractor shall submit proposed changes using ECPs and RFDs to the Government IAW the requirements listed in C.7.2.1, C.7.2.2 and C.7.2.3.

C.7.2.1 (A003) Engineering Change Proposal. Engineering Change Proposals (ECP) shall be submitted by the Contractor IAW Attachment 5 -(See Section J, Attachment 5 - Data Delivery Description -Engineering Change Proposal). All Class I ECPs shall require Government approval prior to implementation. All Class II ECPs do not require prior approval but the Contractor shall notify the Contracting Officer, by means of an ECP, not less than 60 days prior to implementing any configuration changes. ECPs shall be formatted and delivered in accordance with:

DI-CMAN-80639C, Engineering Change Proposal (ECP) and CDRL A003

C.7.2.2 (A004) Request for Deviation. The Contractor shall submit Requests for Deviations (RFD) from current approved configuration documentation IAW Attachment 6 (See Section J, Attachment 6, Data Delivery Description - Request for Deviation). Authorized deviations are a temporary departure from the requirements and do not constitute a change in an approved baseline. Where it is determined that a change should be permanent, the Contractor shall submit an ECP IAW C.7.2.1. The RFDs shall be formatted and delivered in accordance with:

DI-CMAN-80640C, Request for Deviation (RFD) and CDRL A004.

C.7.2.3 (A005) Notice of Revision. The Contractor shall generate and submit Notice of Revision (NOR) concurrently with Engineering Change Proposal (ECPs) when technical documentation requires changes following approval of an ECP. The NOR shall be prepared IAW Attachment 7 -(See Section J, Attachment 7 Data Delivery Description - Notice of Revision (NOR)). The NORs shall be formatted and delivered in accordance with:

DI-CMAN-80642C, Notice of Revision (NOR) and CDRL A005

C.7.3 (A006) Configuration Status Accounting. The Contractor shall establish and maintain a Configuration Status Accounting (CSA) program, which represents the configuration of the TWPS. The CSA system shall provide baseline documentation, delineate the status of changes to the baseline, record implementation of approved changes, and provide an audit trail for engineering changes, drawings and associated lists, software, and other related technical documentation. All approved changes which have been installed in the TWPS shall be recorded. The CSA database shall be electronically transferred to the Government at completion of contract. The CSRs shall be formatted and delivered in accordance with:

DI-CMAN-81253A Configuration Status Accounting and CDRL A006

C.7.3.1 Serialized Tracking. The Contractor shall record and provide to the Government the serialized configuration of the TWPS and modules. The following information shall be part of the Configuration Status Accounting (CSA) Information and made available for Government review during scheduled meetings. As the CSA is updated so shall this information.

a. Contractor Serial Number (i.e.A-0001; MC-0001)

b. System Designation/Model Number
c. Contract Number
d. Contractor
e. Date of Manufacturing
f. Generator set serial number

C.7.4 (A007) Product Drawings and Associated Lists. The Contractor shall develop product drawings and associated lists, which reflect the "as built, as tested" configuration of the TWPS (see Section J, Attachment 8 for Product Drawings). The drawings shall be used for the manufacture, assembly and configuration management of the materials, parts, subassemblies and assemblies of the equipment covered under this contract. The drawings and associated lists shall provide the information necessary to enable the procurement or manufacture of an interchangeable item duplicating the physical and performance characteristics of the original part or assembly without additional design effort on the part of the Government. Product Drawings shall be formatted and delivered in accordance with:

DI-DRPR-81000A, Product Drawings and CDRL A007

C.7.4.1 Drawing Numbers. The Contractor shall use Government furnished drawing numbers on all product drawings. The Contractor shall obtain the Government drawing numbers from the Contracting Officer.

C.7.4.2 Product Drawings Submittal. All new drawings and drawing revisions shall be delivered as electronic data in accordance with the requirements listed below.

C.7.4.2.1 Delivery Format of Engineering Drawings.

C.7.4.2.1.1 Draft drawing submittals and the final PCA drawings shall be submitted in AutoCAD 2000 DWG or hardcopy format as specified in CDRL A007, Product Drawings and Associated Lists. The final submittals of engineering drawings shall be delivered in the following format:

1. Native 2-D or 3-D solid CAD model, AutoCAD 2000 or higher, DWG or format.
2. JEDMICS C4 raster image. (See Section J, Attachment 9 for a List of Commercial Products That Support JEDMICS C4 format or contact the TACOM EDI Office at (586) 574-5305 for assistance.

C.7.4.2.1.2 The Contractor shall contact the PCO for delivery of the actual files for the File Type Number and other technical and interface data.

C.7.4.2.1.3 Larger drawings, (J-K sizes) shall not have multiple plot files or frames.

C.7.4.2.2 Indexing Information. All files shall have proper indexing information. A DLF ASCII file shall accompany a set of engineering data files. The DLF ASCII file shall be formatted so that each record goes on a separate line and bars separate fields. See Section J, Attachment 10 for the JEDMICS Data File Index Structure (DFIS) spreadsheet describing the fields (with accompanying notes), together with a sample of a DLF file. The DLF file can be created using IndexR software available on the Web at http://jtshelp.redstone.army.mil/. The Contractor may contact the TACOM EDI Office at (586) 574-5305 with questions related to file types, index extensions, and similar matters.

C.7.4.2.3 Delivery Media Requirements. Electronic data can be delivered on CD-ROMs (ISO 9660) or through FTP (File Transfer Protocol). Because the Government wishes to take advantage of the latest digital media technology, the Contractor is asked to coordinate its final media decisions with the Contracting Officer prior to delivery.

C.7.4.2.4 Physical Media. The CDROM physical media shall be labeled with the following information:

a. Contractor's name/CAGE
b. Contract Number
c. System
d. The appropriate CDROM number of the total, " CD 2 of 3"
e. Range of document numbers included on the CD.
f. Software version used for Computer-Aided Design (CAD) and International Graphics Exchange Specification (IGES).

C.7.4.2.5 File Naming Convention. Files shall be delivered in batches. No batch shall include more than 50 files. Batches shall be sequentially named as b1, b2, b3, etc. Drawing files shall have names that correspond to the drawing number but not exceed 8 characters in length. File extensions can be obtained from TACOM EDI Office at (586) 574-5305.

C.7.4.2.6 Geometry Creation Guidelines for 2-D and 3-D Models. Guidelines are included at Section J, Attachment 11, Geometry Creation Guidelines for 2-D and 3-D Models.

C.7.4.2.7 Telephone Numbers and Web Sites cited in section C.7.4.2.1.1, 7.4.2.2 and 7.4.2.5 are provided solely for access to interface data and the clarification of technical matters.

C.7.4.3 (A008) Functional Flow Diagrams/Ladder Logic Output. The PLC controls the sequence of operation, output to displays, and relay logic. This data is contained on an Erasable Programmable Read Only Memory (EPROM). The Allan-Bradley version 4.0 program plus the SFA ladder logic is required to make future changes such as Preplanned Product Improvement (P3) or engineering changes to the EPROM. The Contractor shall maintain configuration control of the data for the PLC throughout the duration of the contract. The logic code shall be delivered to the Government on appropriate electronic media, such as a floppy disk or CD-ROM in the format used for the TWPS at the time of delivery. The ladder logic deliveries shall reflect the ladder logic programming used for the TWPS at the time of delivery. Below is the most recent program information. The Ladder Logic Output shall be formatted and delivered in accordance with CDRL A008.

Allen-Bradley 1747-M11
1747 M11Flash Memory, SLC 5/03 and 5/04 Processors (catalog number 1747-L541 or L542)
Program and data table storage, 28K instructions (4K-word data table)
Allen-Bradley 9324-RL0300ene
RSLogix 500, Version 3.01.09
Latest Version, 4.00.00

DI-GDRQ-81224(T), Ladder Logic Output/Functional Flow Diagrams and CDRL A008

C.8 LOGISTICS REQUIREMENTS

C.8.1 Integrated Logistics Support. The Contractor shall plan and conduct an Integrated Logistics Support (ILS) program, which shall govern the management of the ILS effort. The ILS process shall ensure the TWPS, when fielded, will satisfy logistics elements and supportability criteria defined herein. The logistics program shall be discussed during program reviews.

C.8.2. Publications.

C.8.2.1 (A009/A015) Technical Manuals. The Contractor shall develop operator, unit, direct support, and general support maintenance technical manual (TM 10-4610-309-14) and repair parts and special tools list (RPSTL) (TM 10-4610-309-24P), IAW MIL-STD-40051A, Department of Defense Standard Practice, Preparation of Digital Technical Information for Multi-Output Presentation of Technical Manuals, 15 Feb 2001. MIL-HDBK-1222, Department of Defense Handbook, Guide to the General Style and Format of US Army Work Package Technical Manuals, 15 Feb 2001 (for guidance only) IAW Attachment 12 (See Section J, Attachment 12 - Additional Requirements for Table A.1, TM Matrix of MIL-STD-40051A). The manual shall be a system manual that covers all of the components of the TWPS system. The Technical Manuals shall be formatted and delivered in accordance with:

MIL-STD-40051A, Notice 1, Department of Defense Standard Practice, Preparation of Digital Technical Information for Multi-Output Presentation of Technical Manuals and CDRL A009/A015

C.8.2.2 The Contractor shall produce an Acrobat electronic technical manual (ETM) file of the manual described above. Acrobat files are portable document files (PDF) format files. They shall contain bookmarks for the table of contents page, the first page of alphabetical index, the first page of each work package, chapter and section. Bookmark each reference in the manual. No linking is required beyond the bookmarks.

C.8.2.3 Validation. The Contractor shall validate the accuracy and usability of the technical manual to be delivered. The Contractor shall have and use documented Quality Assurance (QA) processes and inspections. The Government has the right to review validation records and witness the validation process. The Government has the right to verify all publication deliverables.

C.8.2.3.1 (A00A) Validation Certification. The Contractor shall, concurrently with the final draft manual/Electronic Tech Manual (ETM), deliver a document of certification, attesting to the adequacy and accuracy of the technical manual and the satisfaction of the validation's requirement for Government review and acceptance. An authorized Contractor representative shall sign the certificate(s). A certificate shall be provided for each manual and ETM validated by the Contractor. The Validation Certification shall be formatted and delivered in accordance with:

DI-CMAN-80792A, Validation Certification and CDRL A00A

C.8.2.4 Verification. The Government will verify that the manual and ETM are accurate during the Logistics Demonstration (LD). Government reviews and verification may be done through sampling with a mix of desktop review and actual performance of the procedures; but could include actual performance of all procedures and review of all pages, if deemed necessary by the Government. The Government does not intend to review and verify every page at every review, but relies on complete, careful editing and review by the Contractor. If there are indications that the Contractor has performed incomplete or inadequate QA reviews, the Government may elect to perform additional reviews and return products for rework. The Contractor shall provide technical and engineering support as required to aid the Government in the performance of the verification effort. The Contractor shall provide one set of technical manuals and an ETM CD/ROM to each verification participant (a maximum of 15 participants) no less then 21 calendar days prior to the scheduled verification effort. The Contractor shall incorporate all Government comments from specification compliance reviews, technical accuracy reviews, and Government verification reviews into the final submission of manuals. Unless otherwise advised by the Contracting Officer, verification

by the Government will be held at the Contractor's facility. The Government will provide target users; the Contractor shall provide all necessary resources to support the Government verification to include the following:

a. Production line end item.
b. Adequate facilities and office space.
c. Mandatory replacement parts needed for assembly and disassembly tasks.
d. Paper copies of the manuals.
e. Expendable supplies and materials.

C.9 COPYRIGHT REQUIREMENTS

C.9.1 The Contractor shall, if requested by the Government, identify copyrighted material, if any, and shall obtain the written approval of the copyright owner for the Government purpose rights in Copyright, (for Government reproduction purposes only) to any and all data/products produced under this SOW. The Contractor shall furnish appropriate release giving the Government permission to reproduce and use copyrighted information. When the manual covers a vendor's component or portion thereof and the vendor's manual contains copyrighted material, the Contractor shall be responsible for obtaining copyright release from the vendor and providing the copyright release to the Government with the final manual.

C.10 PARTS DOCUMENTATION PROGRAM REQUIREMENTS

C.10.1 Provisioning Program. The Contractor shall develop provisioning data for the TWPS in accordance with MIL-PRF-49506 and guidelines of MIL-HDBK-502 and LMI data worksheet IAW Attachment 13 (See Section J, Attachment 13, LMI Requirements, MIL-PRF 49506: EDFP, DCN and PPL). The provisioning data shall contain all data for the assemblies, sub-assemblies, spare parts and module to include Components of the End Item (COEI), Basic Issue Items (BII), Additional Authorized (Items) List (AAL) and Special Tools and Test Equipment (STTE) required to support the TWPS. Engineering Data for Provisioning (EDFP) drawings are required to support each new item being provisioned. The Government will provide the Provisioning Contract Control Number (PCCN), Provisioning Control Code (PCC), and additional information or service unique codes will be provided not later than the Provisioning Guidance Conference.

C.10.1.1 (A00B/A016) Provisioning Parts List (PPL). The Provisioning Parts List (PPL) shall contain the end item, component or assembly and all support items which can be disassembled, reassembled, or replaced, and which, when combined, constitute the end item, component or assembly and shall include items such as parts, materials, connecting cabling, piping, and fittings required for the operation and maintenance of the end item, component, or assembly. The PPL shall be used to determine the range and quantity of support items required to maintain the end item for an initial period of service. This includes all repairable Contractor Off-The-Shelf (COTS) items unless excluded by the provisioning requirements. It does not include a breakdown of Government furnished equipment. The PPL shall include items such as parts, materials, connecting cabling, piping, and fittings required for the operation and maintenance of the end item/equipment. The PPL shall contain all tools, test equipment, repair kits and repair parts sets required to maintain the end item, component, or assembly equipment unless excluded by the provisioning requirements. The PPL shall be formatted and delivered in accordance with:

DI-ALSS-81529, Logistics Management Information (LMI) Data Products (PPL) and CDRL A00B/A016

C.10.1.1.1 The Contractor shall ensure that the submitted LMI Data Products are compatible with the Army Commodity Command Standard System (CCSS) Provisioning On Line System (POLS), ADSM-18-LEA-JBE-ZZZ-UM-06 (User's Manual). The data shall be capable of being loaded into Government PMR without modification to the data. The Contractor shall correct CCSS/POLS rejects within 15 days after receipt of Government notification and resubmit electronically in ASCII text with accompanying 80/80 listing, or equivalent to 80 column card format.

C.10.1.1.2 The Contractor shall maintain and continuously update their data file with the Provisioning Technical Documentation (PTD) Reports. These reports will contain Part Number changes, Source Maintenance and Recoverability (SMR) Code changes, failure factor changes and additions and/or deletions that occur throughout the contract. The Contractor shall ensure that only those items which are repair parts or parts of the end item's top down generation breakdown will be loaded in the PMR. All others will be rejected.

C.10.1.2 (A00C) Pre-Procurement Screening (PPS). Contractor shall conduct pre-procurement screening for all items to be provisioned. Drawings are not required for items accompanied by a copy of pre-procurement screening (i.e., Haystack, Parts master, DLIS) which indicates this item has previously been assigned a valid National Stock Number (NSN). Provisioning and Other Pre-procurement Screening Data are used to identify existing NSNs for an item, validate currency of an NSN, and aid in maximum use of known assets. The PPS shall be formatted and delivered in accordance with:

DI-ALSS-81529, Logistics Management Information (LMI) Data Products (PPS) and CDRL A00C

C.10.1.3 (A00D) Engineering Data for Provisioning (EDFP). Engineering Data For Provisioning (EDFP) is technical data used to describe parts/equipment and consists of data such as specifications, standards, drawings, photographs, sketches and descriptions, and necessary assembly and general arrangement drawings, schematic drawings, schematic diagrams , and wiring and cable diagrams necessary to indicate

the physical characteristics, location, and/or function of the item. The EDFP shall be formatted and delivered IAW DID-ALSS-81529 as referenced below. At a minimum, EDFP must provide the following:

a. Technical information of items for maintenance support considerations

b. Item identification/descriptions necessary for;

(1) Cataloging actions and assignment of a National Stock Number
(2) Review for item entry control
(3) Standardization to include standardization/interchangeability
(4) Item management coding
(5) Identification/procurement of initial spares
(6) Preparation of allowance/issue lists

c. The Contractor shall furnish EDFP in the following order of precedence:

(1) Government or industry recognized specifications or standards
(2) Engineering drawings
(3) Commercial catalogs or catalog descriptions
(4) Sketches or photographs with brief descriptions of dimensional, material, mechanical, electrical, or other descriptive characteristics.

DI-ALSS-81529, Logistics Management Information (LMI) Data Products (EDFP) and CDRL A00D

C.10.1.3.1 EDFP shall be marked in such a manner as to identify the proprietary rights (limited or unlimited). EDFP shall also be marked with the Provisioning Line Item Sequence Number (PLISN) in the upper right hand corner. EDFP shall NOT be provided when the item is:

a. Identified as a Government specification or standard which completely describes the item including its dimensional, mechanical, and electrical characteristics

b. Previously cataloged/assigned an active National Stock Number with type 1 item identification

C.10.1.4 (A00E) Long Lead-Time Items List (LLTIL). The Contractor shall provide a Long Lead-Time Items List. The LLTIL shall contain those items which, because of their complexity of design, complicated manufacturing process or limited production capacity, may cause production or procurement cycles which would preclude timely and adequate delivery, if not ordered in advance of normal provisioning. The LLTIL shall be formatted and delivered in accordance with:

DI-ALSS-81529, Logistics Management Information Data Products (LLTIL) and CDRL A00E

C.10.1.5 (A00F) Recommended Spare Parts List. The Contractor shall provide a proposed spare parts list within 120 days of issuance of the initial delivery order. The list shall be in contractor format. It shall include a listing of spare items the contractor feels will be required to support a TWPS systems for one year following its initial fielding. The recommend spare parts list shall be formatted and delivered in accordance with DID-ALSS-81529 referenced below. The list shall contain, as a minimum, the following information:

a. Unit Identifier (i.e. A-TWPS, MC-TWPS, Modules)
b. Part
c. Part Number
d. NSN, if available
e. Quantity required per year
f. Estimate per unit cost (FOB point is origin, packaging per Section C)
g. Vendor

DI-ALSS-81529, Logistics Management Information Data Products and CDRL A00F

C.10.1.6 (A00G) Design Change Notice (DCN). The Contractor shall submit a DCN for those design or part number changes which modify, add, delete or supersede any of the operating, maintenance or repair parts information that the Contractor provided previously under this contract. The DCNs shall be formatted and delivered in accordance with:

DI-ALSS-81529, Logistics Management Information (LMI) Data Products and CDRL A00G

C.10.1.7 (A00H) Maintenance Allocation Chart (MAC) (MIL-STD-40051-6A). The Contractor shall prepare an initial MAC covering all maintenance tasks by breaking down the TWPS in functional group code sequence. A Functional Group Code (FGC) listing will be provided by the Government at the IPT meeting. The Contractor shall provide a preliminary MAC at the IPT meeting to be reviewed by the joint Contractor-Government working group. The MAC is a living document that forms the basis for provisioning and technical manual

development and is, therefore, subject to change until its final approval concurrent with final approval of the technical manual. The MAC assigns all authorized maintenance functions and repair operations to be performed by the lowest maintenance level appropriate category, and delineates the tools and test equipment required to perform the operations. The first functional group code shall be 00, the end item. The MAC shall include all maintenance significant components, assemblies, subassemblies, and modules. If the maintenance for a repair part consists of replacement only, the part shall not be listed in the MAC, unless not listing the part would result in deletion of the group number; in this case, the part shall be listed in order to retain the functional group number. Parts requiring a test procedure prior to replacement shall also be listed in the MAC. The Government will provide the Contractor, upon request, information pertaining to the maintenance and fielding concepts.

DI-ALSS-81529, Maintenance Allocation Chart (MAC) and CDRL A0OH

C.10.2 Support Equipment. The Contractor shall provide a listing of support equipment, which is defined as tools, test equipment, automatic test equipment and Built-in test/built-in test equipment (BIT/BITE). The requirement for support equipment shall be satisfied by items currently in the Army and Marine Corps inventory to the maximum extent practical. Listings of support equipment resident in the Army and Marine Corps inventory are available from the Government upon the Contractor's request. If the Contractor has determined that support equipment is not required, then an explanation on how and for how long the system is going to be maintained is required. The information shall be delivered as part of the CDRL A00J delivery.

C.10.2.1 (A0OJ) Special Equipment, Tools and Test Equipment List (TTEL). The Contractor shall prepare and deliver a TTEL listing of those peculiar support items including any Test Measurement and Diagnostic Equipment (TMDE) for the TWPS that are not currently listed in the US Army Supply Catalogs (SCs) and Marine Corps TM 10510 and TM 10200 IAW Attachment 14 (See Section J, Attachment 14, Data Item Description - Special Equipment Tools and Test Equipment List). Special tools are defined as tools not found in the Army's General Mechanics tool kit (NSN 5180-00-177-7033), Organizational Maintenance common # 1 tool kit (NSN 4910-00-754-0654), common #2 tool kit (NSN 4910-00-754-0650), and tool kit Supplement #1 (4910-00-754-0653), and US Army supply Catalogs identified in DA PAM 25-30, Section 6, and Marine Corps TM 10510 and TM 10200. Listing of tools and test equipment resident in the Army and Marine Corps inventory are available from the Government upon the Contractor's request. The Contractor shall identify all special tools required to service or repair the TWPS assemblies and incorporate the special tools and test equipment lists into the maintenance manual. The TTEL list, with drawings shall be identified at the first Provisioning Conference. The Contractor shall verify that any special tools listed are indeed not currently in the Government Supply system. After Government approval of the TTEL, the Contractor shall deliver the data concurrently with the MAC.

DI-ILSS-80868(T), Special Equipment Tools & Test Equipment List and CDRL A00J

C.11 SAFETY ENGINEERING AND HEALTH HAZARD REQUIREMENTS

C.11.1 Safety Engineering Principles. The Contractor shall follow good safety engineering practices in establishing the TWPS design and operational procedures to include modifications. MIL-STD-882C can be used as a guide in determining whether safety-engineering objectives are met. As a minimum, the Contractor shall do the following:

C.11.1.1 Identify hazards associated with the system by conducting safety analyses and hazard evaluations. Analyses shall include both operational and maintenance aspects of the system.

C.11.1.2 Eliminate or reduce significant hazards by appropriate design or materiel selection. If hazards to personnel are not avoidable or eliminated, take steps to control or minimize those hazards.

C.11.2 (A00K) Safety Assessment Report (SAR). As a result of system safety analyses, hazard evaluations, and any independent testing, the Contractor shall perform and document a safety (and health hazard) assessment. The safety (and health hazard) assessment shall identify all safety features of the hardware, system design and inherent hazards and shall establish special procedures and/or precautions to be observed by our test agencies and system users. The Contractor shall prepare the Safety Assessment Report in accordance with DI-SAFT-80102B. The Contractor shall identify and incorporate Health Hazards associated with the system into the SAR. MIL-STD-882C provides guidance in the preparation of the Safety Assessment Report and Health Hazard Assessment. In preparing the health hazard portion of the Safety Assessment Report, the Contractor shall provide a description and discussion of each potential or actual health hazard issue of concern for each sub-system or component. A health hazard is an existing or likely condition, inherent to the operation, maintenance, transport or use of materiel, that can cause death, injury, acute or chronic illness, disability, or reduced job performance of personnel by exposure to physiological stresses. Include classification of severity and probability of occurrence. The Contractor will include when the hazards may be expected under normal or unusual operating or maintenance conditions. Examples of hazards to be included in the report are fire prevention issues, electrical issues, and noise.

DI-SAFT-80102B, Safety Assessment Report (SAR) and CDRL A00K

C.12 ENVIRONMENTAL REQUIREMENTS

C.12.1 The Contractor shall use non-hazardous material to the maximum extent practicable to manufacture the TWPS, and will ensure that

the material will support the intended use of the product. Recycled material should be used to the maximum extent possible provided that they do not impact the performance and safety of the final product.

C.12.2 The Contractor shall manage the efforts described by this contract to ensure that all aspects of the contract execution to include, but not limited, to the following Contractor activities: design, manufacturing, testing, and storage activities are in compliance with Federal, State and Local environmental regulations and requirements. The Contractor shall notify the PCO immediately, if the Government gives any direction that could result in permit violations.

C.13 POLLUTION PREVENTION REQUIREMENTS

C.13.1 Hazardous Material Management Program (HMMP). The Contractor shall establish, implement and maintain a Hazardous Materials Management Program using National Aerospace Standard (NAS) 411, "Hazardous Materials Management Program" as a guide. The purpose of this program is to eliminate or minimize (where elimination is not possible) hazardous and environmentally unacceptable materials throughout the life cycle of the system to ensure protection of human health and the environment. The Contractor shall maintain a Hazardous Materials Management program which, at a minimum, shall identify and describe the organizational relationships and responsibilities for eliminating hazardous materials. The Hazardous Materials Management program shall also define the process used to identify the hazardous materials utilized in the manufacturing process, and establish prioritization criteria for ranking the relative risks of these hazardous materials. This program shall be discussed during program reviews. A copy of the program shall be made available to the Government upon request.

C.13.2 Hazardous Material Management Report. The Contractor shall prepare Hazardous Material Management Reports which, at a minimum, shall identify all hazardous materials required for system production, contain a listing of prioritized hazardous materials for minimization/elimination per the criteria established in the Hazardous Material Management Plan, and identify those hazardous materials/processes for which non-hazardous substitute materials/technologies may be available for implementation. This report shall be made available for review upon request of the Government and shall be briefed as part of the program review meetings conducted between the Contractor and the Government.

C.13.3 Contractor Support for Government Preparation of National Environmental Policy Act (NEPA) Documentation. The Contractor shall support Government preparation of all necessary documents and analyses to ensure compliance with NEPA, DOD 5000.2-R and Army Regulation 200-2. The support, on an as-needed basis, shall include, but not be limited to: submission of all Material Safety Data Sheets for all hazardous materials included in the system design or used during contemplated production processes; useage information for hazardous and environmentally unacceptable materials; preliminary descriptions of the proposed production process; production-related permitting requirements filed with the local environmental enforcement agency.

C.14 TRANSPORTABILITY REQUIREMENTS

C.14.1 (A00L) Transportability Report. The Contractor shall submit a transportability report for each TWPS configuration IAW DI-PACK-80880B. Updated reports shall be delivered if transportability characteristics of the TWPS change.

DI-PACK-80880B, Transportability Report and CDRL A00L

C.15 MILITARY PACKAGING DOCUMENTATION REQUIREMENTS:

C.15.1 (A00M) Shipment and Storage (S&S) Instructions. The Contractor shall provide and update S&S instructions. When preparing the shipment and storage instructions the Contractor shall ensure those instructions are consistent with the transportability report required elsewhere in this contract. The S&S instructions shall detail procedures required to prepare the TWPS for storage after it has been in operation. S&S instructions shall be developed for A-TWPS and MC-TWPS, plus Marine Corps modules. The S&S Instructions shall be formatted and delivered in accordance with:

DI-PACK-80121B, Shipping and Storage Instructions and CDRL A00M

C.15.1.1 S&S processing instructions required:

a. Short term transport and/or Storage (180 days maximum in an unheated warehouse) for application when the TWPS is in transport. Short term S&S processing instructions shall be sufficient to protect the items when they are intended for immediate use.

b. Long term storage/OCONUS instructions. The Government will use these instructions to prepare a system for open storage for a period of up to 2 years or for shipment OCONUS. The Contractor shall ensure these instructions include any cyclic maintenance/exercising requirements or any special hazardous material packaging necessary to prevent the system from deteriorating due to inactivity or OCONUS shipment.

c. Controlled Humidity storage (30 months). The Contractor shall ensure these instructions include any cyclic maintenance/exercising

requirements or any special hazardous material packaging necessary to prevent the system from deteriorating due to inactivity.

C.15.1.2 Compliance with Federal Industry and International Transportation Requirements. The Government ships using truck, rail, plane, and ship. The Contractor shall develop shipping and storage instructions for these modes of transportation and identify unique requirements for each mode of transport. This will allow the Government to process for shipment based on the intended mode of transport. The Contractor shall comply with the applicable codes and standards listed here: (1) Code of Federal Regulation, Titles 29, 40 and 49; (2) International Maritime Dangerous Goods Code, for vessel transport and; (3) AFJMAN 24-204, Preparing Hazardous Materials for Military Air Shipments. The Contractor shall include disassembly procedures to meet the requirements of the codes and standards mentioned above.

C.15.2 Packaging Instructions for Basic Issue Items. The Contractor shall ensure that the shipping and storage instructions include packaging instructions for the Basic Issue Items (BII) and Components of the End Item (COEI). The Contractor shall ensure the instructions require that BII shall be packed separately from the COEI.

C.15.2.1 BII and COEI Packaging. The Contractor shall include the shipping and storage instructions provisions for stowage location and security for the BII and COEI. HAZMAT COEI are to be packed and shipped separately from the system and shall comply with Federal and Industry Transportation Requirements identified in Paragraph C.15.2 above. The Contractor shall ensure the stowage locations shall deter pilferage and shall not interfere with lifting, tie down or other transportation handling requirements.

C.15.3 (Changed by Modification P00008) Marine Corps Modules Reuseable Containers. Each of the five modules shall have its own separate packaging. The five modules in their storage containers shall be subjected to repetitive transportation, storage, setup, and teardown conditions required of the TWPS. The Marine Corps Cold Weather, NBC Water Treatment, and Supplemental Cleaning, Waste and Storage Modules as described in detail in paragraph 3.1 of ATPD 2219 shall be stowed, handled and transported in reusable containers. The remaining two modules, NBC Survivability and Ocean Intake Structure System, shall be packaged in reusable fabric storage bags and stowed/secured onto the MC-TWPS.

C.15.3.1 (Changed by Modification P00008). Requirements for the Cold Weather, NBC Water Treatment, and Supplemental Cleaning, Waste and Storage Module Containers. The reusable containers for the Cold Weather, NBC Water Treatment, and Supplemental Cleaning, Waste and Storage Module shall have a minimum service life of 10 years. A plan indicating component placement within the container shall be provided for each container and secured to the inside of the container cover. Containers shall have a method for the user to label the contents of the container with a label that can be replaced if the user needs require a change in the content of the container. Each container shall be marked "Reusable Container-Do Not Destroy". All components shall be capable of being manually loaded without any need for any overhead lifting devices. Container closure shall use hand operated self-contained latches. If the modules require desiccant to withstand storage periods of 48 months in an unheated warehouse, desiccant holder and humidity indicator shall be provided. Containers with a gross weight over 121 pounds shall be constructed to allow handling by a forklift from all four sides. Containers with a gross weight under 121 pounds shall be designed with handles for three person-carry.

C.15.3.2. (Added by Modification P0008). The Marine Corps Cold Weather, NBC Water Treatment, and Supplemental Cleaning, Waste and Storage Modules containers shall be tested IAW ASTM D-4169, Distribution Cycle 18, Assurance Level 1, Acceptance Criteria 3 and contents shall remain secured in position. Prepare a report detailing each step taken during testing and include this test report as part of the Special Packaging Instruction/Shipping and Storage Instruction submission. Document fully the condition of the module container and contents prior to testing and again after testing. Documentation of the test shall include photographs showing the container and contents before and after testing.

C.15.4 Updates and Changes to Shipping and Storage Instructions. The Contractor shall revise the shipping and storage instructions to reflect design changes that affect the system's shipping configuration, weight, or transportability. The Contractor shall also provide revisions to the shipping and storage instructions for each logistics change affecting packaging instructions for BII or COEI.

C.15.5 Validation of Shipping and Storage Instructions. The Contractor shall validate the shipping and storage instructions for Long Term Storage. Short Term and Controlled Humidity Storage Instructions will be validated at the same time by identifying steps that can be performed differently or omitted from the Long Term Instructions. For example, the Long Term Instructions may require a preservative that would not be required for the Short Term Instructions. The purpose of validation is to verify the adequacy of the preservation, packaging, packing and stowage of BII/COEI, preservation procedures for shipment and storage, and the cyclic maintenance requirements for systems in long term storage. A Government representative will verify and witness validation procedures.

C.15.6 Packaging Requirements. The Contractor shall provide Logistics Management Information (LMI) Data Products for packaging data systems entry as specified in MIL-PRF-49506, see DI-ALSS-81529 (see Section J, Attachment 15 LMI - Packaging Data Products and Attachment 16 - LMI Packaging Data Format), to the Commodity Command Standards System (CCSS) for parts that are provisioned (P-source coded) and field level kits (KF-source coded).

C.15.6.1 (A00N) Packaging Data Elements. The Government will provide the Contractor with periodic reports showing status of the program. Data is critical to populating the NSNMDR and the FLIS Government data files and shall be 90% accurate. Submittal errors shall be reworked within 15 days after rejection by the Government. The Contractor shall provide the necessary personnel, facilities, equipment, material, and the electronic data interface. The Contractor shall include information for each of the items so the Government can determine the adequacy of the packaging submittal. This includes item drawings and data such as Source, Maintenance &

Reliability codes, Unit of Issue codes, Unit of Measure, Measurement Quantity, and copies of applicable Material Safety Data Sheets. The Contractor shall furnish item drawings, photo documentation and notes sufficient for reviewing the packaging designs. The Packaging Data Elements shall be formatted and delivered in accordance with:

DI-ALL-81529, Packaging Data Elements and CDRL A00N

C.15.6.2 (A00P) Special Packaging Instructions (SPIs). The Contractor shall prepare SPIs for each reparable item, each hazardous material item, each fragile, sensitive, critical item, and any item that cannot be adequately packaged/defined as a select item following the guidance in MIL-STD-2073-1D. All SPIs will meet the performance of ASTM D4169, Distribution Cycle 18 with the performance criterion of no product damage. The SPI shall be in a format that can be viewed, changed, and commented upon (e.g. Microsoft Word 6.0 or 7.0, see DI-PACK-80121B). The Contractor shall provide read/write access to SPI. Data is critical to populate the Government technical data file, both JEDMICS and ACMS, and all data submitted shall be contractor validated and 95% accurate. Submittal errors shall be reworked within 15 days after rejection by the Government.

DI-PACK-80121B, Special Packaging Instructions and CDRL A00P

C.15.6.3 EXCLUDED Items. Excluded items are those items with packaging data already in the TACOM Packaging File "PACQ", FEDLOG, FLIS, and those assigned a contractor and Government Entity Code (CAGE) of: 1T416, 21450, 80204, 96906, 10060, 24617, 80205, 99237, 80244, 81343, 81346, 81348, 81349, 81352, 88044. Also EXCLUDED are items for not mission capable supply, depot operational consumption and not-for-stock supply.

C.16 TOTAL PACKAGE FIELDING REQUIREMENTS.

C.16.1 Technical Support. The Contractor shall provide technically qualified personnel (Contractor Technical Assistance/Field Service Representative) to provide support to the Total Packaging Fielding team (defined as representatives of the Government) during the handoff to the U.S. Army and Marine Corps receiving units.

C.16.2 Total Package Fielding/Handoff. The Contractor shall provide TPF and handoff, accomplishing deprocessing of the end item and its components; conduct a joint unit inventory; perform handoff of equipment; and prepare and complete the shortage list, joint inventory form and the quality deficiency reports (QDR), SF 368. Completed documentation shall be given to the Government representative.

C.16.2.3 Deprocessing. The Contractor shall perform on-site preparation of equipment prior to fielding or hand-off, including complete operator and maintainer preventive maintenance checks & services (PMCS). Upon completion of deprocessing, the equipment shall be 100% fully mission capable.

C.16.2.4 Shortage List. The Contractor shall prepare a shortage list (DA Fm 2062) of all missing items with a description of the item, nomenclature, NSN, part number, quantity and date of availability. This list shall be attached to the joint inventory.

C.16.2.5 Joint Unit Inventory Form. The Government will provide the Contractor with the joint inventory form (DA Form 5684-R) for their completion. The Contractor, along with the gaining representative, shall conduct a joint inventory of all components and major items. The Contractor shall prepare and sign the joint inventory form.

C.17 LOGISTICS SUPPORT TESTING

C.17.1 Logistics Demonstration (LD) Plan. The Government and Contractor shall develop a LD plan. The LD Plan shall contain the Government and Contractor plans and procedures for demonstrating the logistic supportability of the system. The plan shall contain a statement of demonstration objectives and the qualitative and quantitative requirements to be demonstrated. The contents of the plan shall contain a description of the demonstration conditions. The following areas shall be addressed:

a. A listing of tasks to be demonstrated.

b. Demonstration conditions including the following:

(1) The principal operating modes, operating time and cycling conditions to be imposed.
(2) A description of the demonstration facilities and instrumentation requirements, including location.
(3) The mode of operation during the demonstration considering configuration and mission requirements.
(4) Demonstration constraints such as manpower (by number and skill level), test equipment and their relationship to the eventual use of the items.

c. The types and quantities of equipment and materials to be used including government furnished equipment.

d. The maintenance concept (both Army and Marine Corps).

e. Provisions for a pre-demonstration phase to prepare facilities, personnel and equipment for the formal demonstration.

f. Expected results, including the following:

(l) The method to be used to report test levels.
(2) The data expected from each test along with the recording methodology and definition of provisioning data elements to be collected.
(3) Analytical methods and calculation procedures to be used to analyze demonstration data.
(4) The criteria for classifying demonstration results as successes or failures. Definition of failure must relate to expected symptoms, which will be observed by operators and maintenance personnel.

g. The plan of action to be used when demonstration failures occur.

h. The participating agencies including:

(1) Organization.
(2) Degree of participation by each in terms of managerial, technical, maintenance and operating personnel.
(3) Assignment of specific responsibilities.
(4) Qualifications, quantity, sources, training and indoctrination requirements needed for the personnel participating in the LD.

C.17.1.1 Logistics Demonstration. The Government shall conduct a Logistics Demonstration (LD) concurrently with the Technical Manual Verification (TM Ver). Total duration of the Government LD is 60 days. A LD is a nondestructive disassembly and re-assembly of the TWPS. System peculiar TMDE and support equipment, as well as the system support package, are also tested to determine their logistic status. The LD will include performance of all the operational tasks and scheduled maintenance tasks required for the TWPS.

C.17.1.2 The Contractor shall supply all technical manuals and expendable and durable items required to perform the LD tasks. The Contractor shall provide technical and engineering support, as required to assist the Government in the performance of the LD/TM verification effort. The Contractor shall provide the facilities to support the LD. These facilities shall include an operations site, a shop area equipped with lifting equipment and all the tools and diagnostic equipment required to perform all operations and maintenance tasks.

C.17.1.3 Objectives. The LD is purely a logistics test performed to evaluate:

a. The achievement of maintainability goals.
b. The adequacy and suitability of tools, test equipment and technical publications.
c. Maintenance instructions and personnel skill requirements.
d. The selection and allocation of repair parts, other equipment, and tasks to appropriate maintenance levels; and the adequacy of maintenance time standards.

C.18 CONTRACTOR SUPPORT OF GOVERNMENT TESTING

C.18.1 Production Verification Test. The Government will conduct a Production Verification Test (PVT), at Aberdeen Proving Grounds, Aberdeen, MD and Camp Lejeune, NC/Ft Story (to be determined), on two (2) A-TWPS, and one (1) MC-TWPS produced with production tooling. One set of MC modules will also be required for the MC-TWPS. Total duration of Government PVT will be approximately 180 days of which approximately 30 days will be at Camp Lejeune, NC. The Government will conduct the PVT in accordance with a Government Test Plan. The purpose of the PVT is to ensure that the TWPS system conforms to the requirements specified in Section 3 of the PD 2219.

C.18.1.2 (A00Q) Technical Support during PVT. The Contractor shall provide one on-site technical representative for the duration of PVT. In addition, the Contractor shall supply any spare parts or consumable items that are required during PVT that were not included in the System Support Package. During the PVT, the Government test agency shall write Test Incident Reports (TIRs). Each TIR will be "scored" per the Failure Definition/Scoring Criteria contained in Attachment 17, (See Section J, Attachment 17- Failure Definition Scoring Criteria). The contractor shall respond to each TIR assigned to them with a Failure Analysis and Corrective Action Report (FACAR) in accordance with Attachment 18 (See Section J, Attachment 18 - Failure Analysis and Corrective Action Report). A FACAR shall be submitted within the time limits listed below. Submittal requirements are based on the TIR release dates. The Government before implementation will approve corrective actions. The Failure Analysis and Corrective Action Report shall be formatted and delivered in accordance with:

Incident Classification/ FACAR Submitted Within

Critical-Interim, within 24 hours of incident, Final report within 7 days
Major-Interim, within 3 days of incident, Final report within 15 days
Minor-Interim/Final within 30 calendar days, only if requested by Government
Information-Within 30 calendar days, only if requested by Government

DI-RELI-81315(T), Failure Analysis and Corrective Action Report and CDRL A00Q

C.18.1.3 Non-Conformance of PVT. In the event the TWPS fails to meet requirements as described in the PD 2219, the Contractor shall submit plans for the corrective action or disposition to the Government for approval. Minor failures may be corrected during the testing, with Government approval.

C.18.2 Initial Operational Test and Evaluation (IOT&E). The Government will conduct Initial Operational Test and Evaluation (IOT&E), for the three (3) A-TWPS and (3) MC-TWPS and (3) sets of Marine Corps Modules at Camp LeJeune, NC. The total duration of Government IOT&E testing will be approximately 75 days. The Government will conduct IOT&E in accordance with the Government Test Plan. The purpose of the IOT&E is to determine operational suitability and effectiveness. Three (3) full sets of the five (5) Marine Corps modules (cold weather, supplemental cleaning/waste/storage, ocean intake structure, NBC treatment, and survivability) shall be used for IOT&E.

C.18.3 (A00R)) System Support Package Components List (SSPCL). The Contractor shall develop and deliver a System Support Package Component Listing (SSPCL) for the LD, PVT and IOT&E. The SSPCL shall identify all spare and repair parts requirements to support each Government test. The SSP shall contain all items, to include sufficient quantities of consumable supplies, required to support the TWPS for the duration of the PVT (approximately 2500 operational hours) and IOT&E (approximately 2100 operational hours). The SSPCL shall be delivered in accordance with DI-ILSS-80532. The SSPCL shall be formatted and delivered in accordance with:

DI-ILSS-80532, System Support Package Components List and CDRL A00R

C.18.3.1 System Support Package (SSP). The Contractor shall deliver a SSP for the LD, PVT and IOT&E in accordance with the SSPCL. The Contractor shall deliver the SSP with an inventory list to the government test site 20 days prior to the start of each Government test. At a minimum, the SSP should include, but is not limited to, repair parts, special tools, BII, expendable items, TMDE and draft equipment publications and items from approved SSPCL. The Contractor will provide any additional parts required to support test (either parts not included in the SSP or parts included in insufficient quantity) within 48 hours of Contractor notification by the Government at no additional cost to the Government. If any re-testing is necessary, the Contractor shall provide the necessary SSP items to support the retest.

C.18.4. (Added by Modification P00008). Re-verification Effort. The Government will conduct a re-verification of the PVT and OT changes at either Selfridge Air National Guard Base, MI or Aberdeen Test Center, Aberdeen, MD on one (1) A-TWPS, and one (1) MC-TWPS produced with production tooling and incorporating modifications resulting from PVT and IOT&E. One (1) MC-TWPS Cold Weather Module and one (1) Supplemental Cleaning Waste and Storage Module will be required for the MC-TWPS. Four of the 60kW TQG's provided as GFE shall also be provided to support operations of the TWPS during the validation effort (one mounted on the A-TWPS and three unmounted to be used with the MC-TWPS and as backup). Spare parts from the System Support Package (SSP) provided for PVT and IOT&E shall also be provided. Aberdeen Test Center will pick up all material (two TWPS, SSP, two modules, and three unmounted generators) for the test at SFA's Frederick, MD production facility. Aberdeen Test Center will return all material to SFA at the completion of the re-verification effort. Total duration of the re-verification effort will be approximately 5 days at Selfridge Air National Guard Base. The purpose of the TWPS re-verification is to verify that the TWPS system modifications as a result of PVT and OT conform to the requirements in Section 3 of ATPD 2219.

C.18.4.1. (Added by Modification P00008). Technical Support during the Re-verification Effort. On-site technical support will not be required for the re-verification effort. Spare parts and consumable items for this effort shall be drawn from the Government's SSP remaining from PVT and IOT&E. During the re-verification effort, the Government test agency shall write Test Incident Reports (TIR's), if required. FACAR's shall be submitted in accordance with C.18.1.2.

C.19 MANUFACTURING STANDARD.

C.19.1 The LD unit shall remain at the manufacturing facility as the manufacturing standard. The Contractor shall maintain the unit in a serviceable condition for the time it is used as the manufacturing standard. Upon contract completion, the LD unit shall be the last item shipped on the contract. Any configuration change approved by the Contractor and/or Government shall be incorporated into the manufacturing standard unit at no additional cost to the Government within 30 days. During performance of this contract, the Government reserves the right to select another production-representative unit to remain at the Contractor's facility as the manufacturing standard.

C.20 PRODUCT ASSURANCE REQUIREMENTS

C.20.1 The Contractor shall implement and maintain a product assurance program that ensures compliance to the contract requirements.

C.20.2 (A00S, A00T) The Contractor shall develop and implement a quality acceptance, inspection and test (AI&T) plan for the TWPS production, test, and refurbishment units to include all models. This acceptance inspection and test (AI&T) plan shall demonstrate the adequacy and suitability of the Contractor's production processes and procedures for achieving the performance inherent in the product baseline. This acceptance inspection and test (AI&T) plan with sign off sheets (check-lists) shall be submitted to the Government for approval prior to any acceptance of the TWPS system either for testing or production by Government QAR inspectors. The Contractor shall

conduct testing which will ensure the manufacturing processes, equipment and procedures are effective, in accordance with ATPD 2219, paragraph 4.1.4 (AI&T) with a Government QAR present. Simulator plugs used during the AI&T shall be packed with the TWPS and be retained by the receiving unit. Evidence of any failure during the acceptance inspection and test (AI&T) requirements in ATPD 2219, paragraph 4.1.4 shall constitute rejection of the unit by the Government QAR. The AI&T shall be formatted and delivered in accordance with:

DI-NDTI-80603, Test Procedure (AI&T) and CDRL A00S
DI-NDTI-80809B, Test/Inspection Report (AI&T) and CDRL A00T

C.21 GOVERNMENT FURNISHED PROPERTY

C.21.1 GOVERNMENT MATERIAL. The Government will furnish to the Contractor the items identified in Section J, Exhibit A, Government Furnished Material and/or Property or Equipment. The Contractor, upon receipt of Government owned assets, will perform an inventory (with DCM oversight/guidance) and inspection within ten working days. The inspection shall determine, as a minimum, if the items are in adequate condition and suitable for intended use. The Contractor shall provide notification of receipt to the Government in Contractor format. As a guide the Contractor may follow the requirements of DI-MGMT-80389B.

C.21.2 (A00U) Upon discovery of defective GFM the Contractor shall document the results of the inspection and shall furnish a Quality Deficiency Report Standard Form 36 (QDR). The report shall, at a minimum, include a description of the deficiency and/or defect, quantity of GFM affected, recommended disposition or cost to repair the item. The Quality Deficiency Report shall be formatted and delivered in accordance with:

DI-QCIC-80736 Quality Deficiency Report and CDRL A00U

C.21.3 Handling, storage and accountability of GFM shall be in accordance with the Contractor's Quality Program.

C.22 TRAINING REQUIREMENTS

C.22.1 General. The Contractor shall develop training material (courseware) to cover operator and maintenance tasks for the TWPS. The Contractor shall be responsible for initial training and all courseware to support it. Training and courseware shall be on the operation, maintenance, and repair of all components and ancillary equipment (if any) unique to the TWPS. Initial training shall be conducted at Government facilities. Trainees may either be Government personnel or Government support contractors. The training shall include any necessary equipment to support operation, PMCS, and operator and unit maintenance of the TWPS. Instruction shall consist of approximately 40% classroom and 60% practical exercise, and teach operation, setup and disassembly, preventive maintenance checks and service (PMCS), inspection, testing, troubleshooting, and safety procedures. Initial training shall be conducted to support the Government testing (Production Verification Test and Initial Operational Test and Evaluation). No separate training is required to support the Logistics Demonstration. Army and US Marine Corps will use the same lesson guides for PVT and IOT&E. Separate guides will be developed for I&KPT and NET for Army and Marine Corps use.

C.22.2 Production Verification Test (PVT) Training. Training to support the PVT shall consist of an operator course and maintainer course. The Contractor shall conduct PVT training for a maximum of 30 students at Aberdeen, MD. The Government reserves the right to have additional participants present during conduct of course. These courses shall be targeted to the personnel who will operate and maintain the system. The PVT courses shall be taught by the Contractor utilizing draft courseware. The operator course shall not be more than 80 hours in length; the maintainer course shall be combined with or overlap the operator course and not be more than 80 hours in length. Total time of the PVT training shall not exceed 120 hours.

C.22.2.1 The Contractor shall deliver three TWPS and the associated support equipment to include technical manuals, all lesson materials, training literature, training aids, special tools & test equipment, and all tools necessary to disassemble and assemble, to the training site not later than 7 days prior to the training.

C.22.3 Initial Operational Test and Evaluation Training. Training to support the Initial Operational Test and Evaluation (IOT&E) shall consist of an operator course and maintainer course. The Contractor shall conduct IOT&E training for a maximum of 30 students at Camp LeJuene, NC. The Government reserves the right to have additional participants present during conduct of course. These courses shall be targeted to the personnel who will operate and maintain the system. The IOT&E courses shall be taught by the Contractor utilizing draft courseware. The operator course shall not be more than 80 hours in length; the maintainer course shall be combined with or overlap the operator course and not be more than 80 hours in length. Total time of the IOT&E training shall not exceed 120 hours.

C.22.3.1 The Contractor shall deliver nine (9) TWPS (2 A-TWPS and 1 MC-TWPS for PVT, 3 A-TWPS and 3-MC TWPS for IOT&E) and the associated support equipment to include draft technical manuals, all lesson materials, training literature, training aids, special tools & test equipment, and all tools necessary to disassemble and assemble, to the training site not later than 7 days prior to the training.

C.22.4.(Changed by Mod. 10) Instructor and Key Personnel (I&KP) Training. The Contractor shall provide I&KP training and shall utilize draft courseware. The I&KP training course shall consist of Army and MC training. The Contractor shall conduct a total of three (3)

courses. MC training shall consist of one combined operator and maintainer course. Army training shall consist of two courses; one operator course and one maintainer course. The courses shall accommodate a maximum of 30 students each. The Government reserves the right to have additional participants present during conduct of course. The Army and MC training courses will be conducted at the Contractor's facility. Each operator course shall not exceed 120 hours. Each maintainer course shall not exceed 40 hours in duration. All training shall be complete within three (3) consecutive work weeks. The courses shall be targeted to instructor and key personnel who will operate and maintain the system. Within 15 days of completion of all I&KP training, the Government will provide comments to the Contractor that shall be incorporated into the draft courseware to yield the final courseware.

C.22.4.1.(Changed by Mod. 10). The Contractor shall have at least three (3) TWPS units that have been brought up to the configuration baseline and associated support equipment available during the course to facilitate training. After training, the training units shall be refurbished as necessary to complete refurbishment for final delivery. The testing equipment shall include one (1) draft technical manual for each system, all lesson materials, training literature, training aids, special tools and test equipment, and all tools necessary to disassemble and assemble the test units.

C.23 TRAINING MATERIALS

C.23.1.(Changed by Mod. 10). The Contractor shall ensure that all course training material is available and in place prior to the first day of class. The associated support material and equipment includes draft technical manuals for each student, all lesson materials, training literature, training aids, special tools & test equipment, and all tools necessary to disassemble and assemble the units.

C.23.2 (A00V) Training Course Outline. The Contractor shall deliver a training course outline in accordance with DI-ILSS-80872 (T). The outline is a schedule of events and includes a breakdown of individual topics showing the time allotted, materials required (TV, VCR, etc.), facility requirements, reference materials, type of instruction (practical exercise, lecture, demonstration, video, etc) and tools required for each topic. Commercial format is acceptable; a sample outline will be provided to the contractor at the start of work meeting. (See Section J, Attachment 19 - Data Item Description (DID): New Equipment Training). The Training Course Outline shall be formatted and delivered in accordance with:

DI-ILSS-80872(T), Training Course Outline and CDRL A00V

C.23.3 (A00W, A00X, A00Y, A00Z, A010, A011) Training Materials. The Contractor shall deliver an Instructor Guide and a Student Training Guide. Training Materials shall contain equipment and component description, functional data, training handbooks that include, by sub-component for TWPS operation, setup and disassembly, inspection, testing, troubleshooting, and safety procedures. Army and Marine guides will have branch specific information included about the TWPS. (See Section J, Attachment 19 - Data Item Description (DID): New Equipment Training). All training materials shall be formatted and delivered in accordance with:

DI-ILSS-80872(T), Instructor Lesson Guides:Marine Operators/Maintainers and CDRL A00W
DI-ILSS-80872(T), Student Lesson Guides:Marine Operators/Maintainers and CDRL A00X
DI-ILSS-80872(T), Instructor Lesson Guides:Army Operators and CDRL A00Y
DI-ILSS-80872(T), Student Lesson Guides:Army Operators and CDRL A00Z
DI-ILSS-80872(T), Instructor Lesson Guides:Army Maintainers and CDRL A010
DI-ILSS-80872(T), Student Lesson Guides:Army Maintainers and CDRL A011

C.23.4 (A012) Training Course Completion Report. The Contractor shall deliver a Training Course Completion Report. The Contractor shall data fax or e-mail to the Government a list of students in attendance on the first day of training. The Government will send completed Certificates of Training to the instructor after the Government receives the list of students in attendance, to be presented at the end of the class. The Contractor may also provide corporate certificates if desired. The Government will provide the contractor with course critiques that the Contractor shall administer to each student at the end of each class conducted. For each class the Government will provide a student attendance list, to be administered by the instructor. The Contractor shall submit the critiques and completed student attendance list NLT 10 days after completion of each class. (See Section J, Attachment 19 - Data Item Description (DID): New Equipment Training). Training Course Completion Report shall be formatted and delivered in accordance with:

DI-ILSS-80872(T), Training Course Completion Report and CDRL A012

C.23.5 (A013/A017) Visual Aids. The Contractor shall provide visual aids, such as slides and transparencies converted to a PowerPoint presentation, to be used by the instructor in the conduct of classes. They shall enhance the learning process and be in accordance with Government approved production standards. (See Section J, Attachment 19 (Data Item Description (DID): New Equipment Training)). Visual Aids shall be formatted and delivered in accordance with:

DI-ILSS-80872(T), Instructional Visual Aids and CDRL A013/A017

C.24 NEW EQUIPMENT TRAINING - OPTION.

C.24.1 The Government may require the Contractor to conduct New Equipment Training (NET) to take place at Government sites at the using units' locations. Trainees may either be Government personnel or Government support contractors. Course requirements and course content shall utilize Government approved training materials. The Government will provide the Contractor 60 days notification to

prepare for NET. Location and number of courses will be defined upon exercise of option/delivery order.

C.25 CONTRACTOR TECHNICAL ASSISTANCE/FIELD SERVICE REPRESENTATIVE REQUIREMENTS (CTA/FSR) - OPTION

C.25.1. The Contractor shall provide up to 625 man-days of Contractor Technical Assistance/Field Service Representative and shall be paid based on a man-day basis. Travel expenses will be paid on cost reimbursable basis. Clin will be established at time of option.

C.25.1.2. The Contractor shall provide a man-day of service rate per job classification, per ordering period for contractor technical assistance/field service representative. The man-day rate will be in support of Total Package Fielding (see paragraph C.16) or other technical assistance that may be requested. The Contractor shall provide qualified Contractor Technical Assistance/Field Service Representative(s) (FSR) who shall advise/make recommendations to orient and instruct key Government personnel regarding operations, maintenance, repair, and supply of contractor parts for the TWPS, including all components.

C.25.1.3. The PCO shall designate the times and locations of the service to be performed by work directive, but will not supervise or otherwise direct activities. Within a half working day of notification, if possible, the Contractor shall notify the TACOM Contract Specialist of the transportation costs (best commercially available round trip airfare, if air transportation is necessary, and hours of travel required to and from the site) to be included in the order.

C.25.1.4 The Contractor will obtain specific requirements, if any, for access to Government facilities 30 days prior to each fielding. If a security clearance is needed at the site where the FSR will perform his services, the Contractor shall be responsible for insuring all coordination is made with the appropriate personnel. The Contractor may be required to provide personal vital statistics related to the FSR, including documentary evidence, such as a birth certificate and such other evidence to affect a security clearance. It is recommended though not a contract requirement, that the Contractor initiate clearances for potential CTAs/FSRs following award.

C.25.1.5 Upon completion of an assignment, the FSR shall submit to the TACOM Contract Specialist a letter or report, in contractor format, which synopsizes his assignment.

C.25.2 Man-day of Service

C. 25.2.1. The FSR shall work no more than eight (8) hours per day, excluding travel time, unless authorized by the PCO. A man-day of service includes any period during which the FSR is delayed or prevented from performing any task only if the delay or non-performance is solely the fault of the Government.

C. 25.2.2 Travel time for initial travel from the Contractor's facility to the work site, for travel between work sites, and for travel back to the contractor's facility will be considered as part of a man-day of service and may exceed the eight hour man-day work day.

C.25.2.3. The man-day rate is exclusive of subsistence, lodging, and incidental expense incurred by the FSR while performing the services. The Government will pay these expenses to the extent of the per diem rate listed in the Joint Travel Regulation for the job site, with the exception that the Government will pay the FSR 75% of the listed meals and incidental expense rate for the first and last travel days.

C.25.2.4 The man-day rate of service is exclusive of all transportation costs, which includes airfare and local rental car in and around the job site. The Government will pay the contractor Government auto rental rates for the site of the service and will pay for the best commercially available airfare, if air transportation is necessary, during performance of services under orders issued in accordance with this scope of work.

C.25.2.5. Man days. The man-day of service includes all Government delays, travel time (all-inclusive), and report preparation completed at the duty location. In addition to payment for actual days worked, the Government will pay for official U.S. holidays if it is necessary for the representative to be present on those days to complete the technical assistance assignment that would be normal workday (s) at the FSR's facility. When the FSR is on site on a Saturday or Sunday but is not working, the Government will pay only the per diem and local transportation costs. The granting of vacation time off, holidays other than official US holidays, sick and emergency leave is solely the responsibility of the Contractor and shall not be paid for by the Government under terms of this contract. It is immaterial whether the same representative completes an assignment, but the Government will not pay additional travel costs or time if the Contractor decides to rotate personnel during the course of an assignment, unless authorized by the PCO.

C.26 TEST UNIT REFURBISHMENT-COST REIMBURSEMENT

C.26.1 Following completion of the Logistics Demonstration, the PVT and the IOT&E, the Government in conjunction with the Contractor, shall examine the test units to determine if they are feasible to refurbish the test units. The Contractor shall submit a cost proposal for refurbishment cost by unit. Final decision of refurbishment shall remain solely with the Government. Should the Government direct refurbishment of any or all units, the Contractor shall refurbish the units to the current (all approved corrective actions and engineering changes) production baseline. Refurbishment shall be completed within 90 days of Government notice. Thirty days following completion of each unit, the contractor shall submit a proposal for equitable adjustment. All refurbishment costs will include transportation costs from the test site to the contractor's facility.

C.26.2 The effort shall include but is not limited to the Contractor:

a. Replacing all oils and lubricants
b. Replacing all filters
c. Repainting the exterior of the units

C.26.3 If additional GFM (generator and manuals) is required, the Government will provide it.

C.26.4 Following refurbishment the Contractor shall present the units to the Government for acceptance.

C.26.5 All effort under this paragraph shall be paid under a cost reimbursement CLIN of the contract.

C.27 RETROFIT OF UNITS BUILT PRIOR TO FAT APPROVAL.

The Contractor shall at no additional cost to the Government retrofit all units built prior to FAT approval to the current production baseline. FAT units are excluded from this provision.

*** END OF NARRATIVE C 001 ***